WELDING JOURNAL INDEX

VOLUME 79 — 2000

PUBLISHED BY THE AMERICAN WELDING SOCIETY, 550 N.W. LEJEUNE RD., MIAMI, FL 33126

Part 1 — WELDING JOURNAL

SUBJECT INDEX

Advancements Push Pipeline Welding Productivity, Technology — S. A. Blackman and D. V. Dorling, 39 (Aug)

Airport Expansion, Welding Lends Architectural Flair to — 43 (Oct)

Architectural Flair to Airport Expansion, Welding Lends — 43 (Oct)

Assessing Arc Welding Performance and Quality, A Wise Method for — D. D. Harwig, 35(Dec)

Assessing Deterioration Conditions in Coke Drums — J. A. Penso, C. L. Tsai, D. G. Howden and W. O. Soboyejo, 45 (Aug)

Auto Industry Gears Up for Aluminum, The — B. Irving, 63 (Nov).

Automotive Industry, Electron Beam Welding: A Useful Tool for the — D. Powers and G. Schubert, 35 (Feb)

Alkaline Cleaning, Back to Basics: A Guide to — G. Sanko, 49 (Jul)

Back to Basics: A Guide to Alkaline Cleaning — G. Sanko, 49 (Jul)

Backscattered Electron Diffraction to Understand Weldability, Using — J. N. Dupont, J. R. Michael and C. V. Robino, 43 (Mar)

Basics: A Guide to Alkaline Cleaning, Back to — G. Sanko, 49 (Jul)

Boiler Tubing, Cladding Operation Doubles Life of — T. Heston, 45 (Jul)

Brazing Flux Breakthroughs, Manufacturers Capitalize on — S. A. Urban, 37 (Sep)

Bridge Construction, Electroslag Welding Stands Poised for a Comeback in — M. R. Johnsen, 39 (Feb)

Caterpillar, Robotic Arc Welding Is Off and Running at — B. Iving, 55 (Apr)

Cell with Its Own Web Site, A Welding — T. P. Quinn, J. D. Gilsinn and W. Rippey, 46 (Jan)

Chicago: There's a Whole Lot of Welding Going On — M. R. Johnsen and T. Heston, 48 (Apr)

Choose Brazing, Ten Reasons to — W. D. Kay, 33 (Sep)

Chrome Plating, Thermal Spray Coatings as an Alternative to Hard — B. D. Sartwell, 39 (Jul)

Cladding Operation Doubles Life of Boiler Tubing — T. Heston, 45 (Jul)

Coast Guard Always Ready, Weld Shop Keep U. S. — 31 (May)

Coatings as an Alternative to Hard Chrome Plating, Thermal Spray — B. D. Sartwell, 39 (Jul)

Coke Drums, Assessing Deterioration Conditions in — J. A. Penso, C. L. Tsai, D. G. Howden and W. O. Soboyejo, 45 (Aug)

Companies Enter into the Judiciary System, From Naiveté to Desperation: When Small — J. A. Miller, 35 (Oct)

Company Embraces Automatic Laser Gas Supply System — F. Steele, 61 (Apr)

Consolidates Cutting Operations to Cut Costs, Steel Center — 41 (May)

Cost Effective, Repairing an Offshore Jacket Structure Proves — J. R. Still and V. Blackwood, 43 (May)

Cost of GMAW Gun Ownership, Calculating the Total — H. Shah, 49 (Oct)

Contact-Tube Performance through Cryogenics, Improving — J. Villafuerte, 45 (Oct)

Critical for Offshore Oil Production Vessels, Hull Weld Quality — J. R. Still and J. B. Speck, 33 (Aug)

Cutting Operations to Cut Costs, Steel Center Consolidates — 41 (May)

Densities of Many Thermal Sprayed Coatings, HVIF Process Improves — B. Irving, 42 (Feb)

Desk to the Desktop, Moving Weld Management from the — A. D. Brightmore and M. Bernasek, 43 (Jan)

Desperation: When Small Companies Enter into the Judiciary System,From Naiveté to — J. A. Miller, 35 (Oct)

Deterioration Conditions in Coke Drums, Assessing — J. A. Penso, C. L. Tsai, D. G. Howden and W. O. Soboyejo, 45 (Aug)

Development of Titanium Weld Color Inspection Tools — J. Talkington, D. Harwig, H. Castner and G. Mitchell, 35 (Mar)

Diffraction to Understand Weldability, Using Backscattered Electron — J. N. DuPont, J. R. Michael and C. V. Robino, 43 (Mar)

Drawn Arc Stud Welding: Crossing Over from Steel to Aluminum — S. Ramasamy, 35 (Jan)

Electron Beam Welding: A Useful Tool for the Automotive Industry — D. Powers and G. Schubert, 35 (Feb)

Electroslag Welding Stands Poised for a Comeback in Bridge Construction — M. R. Johnsen, 39 (Feb)

Entry-Level Welders, Program Answers Industry's Call for — M. R. Johnsen, 29 (Dec)

Equipment Industry, Survey Reflects Stability in Welding — A. Cullison, 65 (Apr)

Filler Metal for Welding Aluminum, How to Select the Best — T. Anderson, 69 (Nov)

Forcing Adjustments in Welding and Cladding, Petrochem-

WELDING JOURNAL INDEX

VOLUME 79 — 2000

PUBLISHED BY THE AMERICAN WELDING SOCIETY, 550 N.W. LEJEUNE RD., MIAMI, FL 33126

Part 1 — WELDING JOURNAL

SUBJECT INDEX

Advancements Push Pipeline Welding Productivity, Technology — S. A. Blackman and D. V. Dorling, 39 (Aug)

Airport Expansion, Welding Lends Architectural Flair to — 43 (Oct)

Architectural Flair to Airport Expansion, Welding Lends — 43 (Oct)

Assessing Arc Welding Performance and Quality, A Wise Method for — D. D. Harwig, 35(Dec)

Assessing Deterioration Conditions in Coke Drums — J. A. Penso, C. L. Tsai, D. G. Howden and W. O. Soboyejo, 45 (Aug)

Auto Industry Gears Up for Aluminum, The — B. Irving, 63 (Nov).

Automotive Industry, Electron Beam Welding: A Useful Tool for the — D. Powers and G. Schubert, 35 (Feb)

Alkaline Cleaning, Back to Basics: A Guide to — G. Sanko, 49 (Jul)

Back to Basics: A Guide to Alkaline Cleaning — G. Sanko, 49 (Jul)

Backscattered Electron Diffraction to Understand Weldability, Using — J. N. Dupont, J. R. Michael and C. V. Robino, 43 (Mar)

Basics: A Guide to Alkaline Cleaning, Back to — G. Sanko, 49 (Jul)

Boiler Tubing, Cladding Operation Doubles Life of — T. Heston, 45 (Jul)

Brazing Flux Breakthroughs, Manufacturers Capitalize on — S. A. Urban, 37 (Sep)

Bridge Construction, Electroslag Welding Stands Poised for a Comeback in — M. R. Johnsen, 39 (Feb)

Caterpillar, Robotic Arc Welding Is Off and Running at — B. Iving, 55 (Apr)

Cell with Its Own Web Site, A Welding — T. P. Quinn, J. D. Gilsinn and W. Rippey, 46 (Jan)

Chicago: There's a Whole Lot of Welding Going On — M. R. Johnsen and T. Heston, 48 (Apr)

Choose Brazing, Ten Reasons to — W. D. Kay, 33 (Sep)

Chrome Plating, Thermal Spray Coatings as an Alternative to Hard — B. D. Sartwell, 39 (Jul)

Cladding Operation Doubles Life of Boiler Tubing — T. Heston, 45 (Jul)

Coast Guard Always Ready, Weld Shop Keep U. S. — 31 (May)

Coatings as an Alternative to Hard Chrome Plating, Thermal Spray — B. D. Sartwell, 39 (Jul)

Coke Drums, Assessing Deterioration Conditions in — J. A. Penso, C. L. Tsai, D. G. Howden and W. O. Soboyejo, 45 (Aug)

Companies Enter into the Judiciary System, From Naiveté to Desperation: When Small — J. A. Miller, 35 (Oct)

Company Embraces Automatic Laser Gas Supply System — F. Steele, 61 (Apr)

Consolidates Cutting Operations to Cut Costs, Steel Center — 41 (May)

Cost Effective, Repairing an Offshore Jacket Structure Proves — J. R. Still and V. Blackwood, 43 (May)

Cost of GMAW Gun Ownership, Calculating the Total — H. Shah, 49 (Oct)

Contact-Tube Performance through Cryogenics, Improving — J. Villafuerte, 45 (Oct)

Critical for Offshore Oil Production Vessels, Hull Weld Quality — J. R. Still and J. B. Speck, 33 (Aug)

Cutting Operations to Cut Costs, Steel Center Consolidates — 41 (May)

Densities of Many Thermal Sprayed Coatings, HVIF Process Improves — B. Irving, 42 (Feb)

Desk to the Desktop, Moving Weld Management from the — A. D. Brightmore and M. Bernasek, 43 (Jan)

Desperation: When Small Companies Enter into the Judiciary System,From Naiveté to — J. A. Miller, 35 (Oct)

Deterioration Conditions in Coke Drums, Assessing — J. A. Penso, C. L. Tsai, D. G. Howden and W. O. Soboyejo, 45 (Aug)

Development of Titanium Weld Color Inspection Tools — J. Talkington, D. Harwig, H. Castner and G. Mitchell, 35 (Mar)

Diffraction to Understand Weldability, Using Backscattered Electron — J. N. DuPont, J. R. Michael and C. V. Robino, 43 (Mar)

Drawn Arc Stud Welding: Crossing Over from Steel to Aluminum — S. Ramasamy, 35 (Jan)

Electron Beam Welding: A Useful Tool for the Automotive Industry — D. Powers and G. Schubert, 35 (Feb)

Electroslag Welding Stands Poised for a Comeback in Bridge Construction — M. R. Johnsen, 39 (Feb)

Entry-Level Welders, Program Answers Industry's Call for — M. R. Johnsen, 29 (Dec)

Equipment Industry, Survey Reflects Stability in Welding — A. Cullison, 65 (Apr)

Filler Metal for Welding Aluminum, How to Select the Best — T. Anderson, 69 (Nov)

Forcing Adjustments in Welding and Cladding, Petrochem-

ical Requirements Are — B. Irving, 53 (Aug)
Flux Breakthroughs, Manufacturers Capitalize on Brazing — S. A. Urban, 37 (Sep)
Flux-Free Ultrasonic Soldering, A New Look at, H. R. Faridi, J. H Devletian and H. P. Le, 41 (Sep)
GTA Welding Machines Improve Fabrication, Inverter-Based — M. Sammons, 35 (May)
Future, Training for the — D. Landon, 40 (Dec)
Gas Supply System, Company Embraces Automatic Laser — F. Steele, 61 (Apr)
Gears Up for Aluminum, The Auto Industry — B. Irving, 63 (Nov).
GMAW Gun Ownership, Calculating the Total Cost of — H. Shah, 49 (Oct)
Great Master's Horse Returns Home after 500 Years, The — 44 (Apr)
HVIF Process Improves Densities of Many Thermal Sprayed Coatings — B. Irving, 42 (Feb)
Heavy Weldments, Metal Cored Welding Wire Comes Through on — D. Phillips, 52 (Mar)
Horse Returns Home after 500 Years, The Great Master's — 44 (Apr)
Hull Weld Quality Critical for Offshore Oil Production Vessels — J. R. Still and J. B. Speck, 33 (Aug)
Inspection Tools, Development of Titanium Weld Color — J. Talkington, D. Harwig, H. Castner and G. Mitchell, 35 (Mar)
Inspects Pipe Welds, Portable Video Probe — 73 (Nov)
Inverter-Based GTA Welding Machines Improve Fabrication — M. Sammons, 35 (May)
Japan's High-Speed Trains on Track, Advanced Welding Technology Keeps — S. Yamada and K. Masubuchi, 48 (Nov).
Judiciary System, From Naiveté to Desperation: When Small Companies Enter into the — J. A. Miller, 35 (Oct)
Laser Gas Supply System, Company Embraces Automatic — F. Steele, 61 (Apr)
Machines Improve Fabrication, Inverter-Based GTA Welding — M. Sammons, 35 (May)
Management from the Desk to the Desktop, Moving Weld — A. D. Brightmore and M. Bernasek, 43 (Jan)
Master's Horse Returns Home after 500 Years, The Great — 44 (Apr)
Metal Cored Welding Wire Comes Through on Heavy Weldments — D. Phillips, 52 (Mar)
Methods of Weld Root Purging for Pipe Welding — R. Sewell, 57 (Aug)
Mexico, Training Welders in — A. Hill Price, 41 (Dec)
Moving Weld Management from the Desk to the Desktop — A. D. Brightmore and M. Bernasek, 43 (Jan)
National Landmark, Preserving a — T. Siewert, C. McCowan, R. Bushey, B. Robinson, T. Christ and K. Hildebrand, 54 (Nov).
Networking of Welding Applications: A Tutorial — T. P. Quinn, J. D. Gilsinn and W. Rippey, 49 (Jan)
New Approach to Powder Spraying, A — V. Bogachek, 45 (Feb)
OSHA Inspection, Respiratory Protection: Preparing for an — C. E. Colton, 49 (Mar)
Offshore Jacket Structure Proves Cost Effective, Repairing an — J. R. Still and V. Blackwood, 43 (May)
Oil Production Vessels, Hull Weld Quality Critical for Offshore — J. R. Still and J. B. Speck, 33 (Aug)
Operation Doubles Life of Boiler Tubing, Cladding — T. Heston, 45 (Jul)
Pathway to the Stars, Welding a — M. R. Johnsen, 39 (Oct)
Performance through Cryogenics, Improving Contact-Tube — J. Villafuerte, 45 (Oct)
Pipe Production and Reduce Cost, Two New Technologies May Increase — T. McGaughy, 65 (Aug)
Pipe Welding, Methods of Weld Root Purging for — R. Sewell, 57 (Aug)
Pipeline Welding Productivity, Technology Advancements Push — S. A. Blackman and D. V. Dorling, 39 (Aug)
Petrochemical Requirements Are Forcing Adjustments in Welding and Cladding — B. Irving, 53 (Aug)
Powder Spraying, A New Approach to — V. Bogachek, 45 (Feb)
Program Answers Industy's call for Entry-Level Welders — M. R. Johnsen, 29 (Dec)
Protection: Preparing for an OSHA Inspection, Respiratory — C. E. Colton, 49 (Mar)
Purging for Pipe Welding, Methods of Weld Root — 57 (Aug)
Repairing an Offshore Jacket Structure Proves Cost Effective — J. R. Still and V. Blackwood, 43 (May)
Respiratory Protection: Preparing for an OSHA Inspection — C. E. Colton, 49 (Mar)
Robotic Arc Welding Is Off and Running at Caterpillar — B. Irving, 55 (Apr)
Safety Programs, Too, Small Shops Need — 39 (Mar)
Select the Best Filler Metal for Welding Aluminum, How to — 69 (Nov)
Shop Keeps U. S. Coast Guard Always Ready, Weld — 31 (May)
Small Shops Need Safety Programs, Too — 39 (Mar)
Sprayed Coatings, HVIF Process Improves Densities of Many Thermal — B. Irving, 42 (Feb)
Stability in Welding Equipment Industry, Survey Reflects — A. Cullison, 65 (Apr)
Steel Center Consolidates Cutting Operations to Cut Costs — 41 (May)
Steel to Aluminum, Drawn Arc Stud Welding: Crossing Over from — S. Ramasamy, 35 (Jan)
Stud Welding: Crossing Over from Steel to Aluminum, Drawn Arc — S. Ramasamy, 35 (Jan)
Survey Reflects Stability in Welding Equipment Industry — A. Cullison, 65 (Apr)
Technologies May Increase Pipe Production and Reduce Cost, Two New — T. McGaughy, 65 (Aug)
Technology Advancements Push Pipeline Welding Productivity — S. A. Blackman and D. V. Dorling, 33 (Aug)
Technology Stars at 2000 AWS Exposition, Welding — A. Cullison and M. R. Johnsen, 33 (Jul)
Thermal Spray Coatings as an Alternative to Hard Chrome Plating — B. D. Sartwell, 39 (Jul)
Titanium Weld Color Inspection Tools, Development of — J. Talkington, D. Harwig, H. Castner and G. Mitchell, 35 (Mar)
Trains on Track, Advanced Welding Technology Keeps Japan's High-Speed — S. Yamada and K. Masubuchi, 48 (Nov).
Tube-to-Tubsheet Joints, Improving the Reliability of — H. W. Ebert, 47 (Sep)
Two New Technologies May Increase Pipe Production and Reduce Cost — T. McGaughy, 65 (Aug)
Ultrasonic Soldering, A New Look at Flux-Free , H. R. Faridi, J. H Devletian and H. P. Le 41 (Sep)
Using Backscattered Electron Diffraction to Understand Weldability — J. N. Dupont, J. R. Michael and C. V. Robino, 43 (Mar)
Video Probe Inspects Pipe Welds, Portable — 73 (Nov)
Web Site, A Welding Cell with Its Own — T. P. Quinn, J. D. Gilsinn and W. Rippey, 46 (Jan)
Weld Root Purging for Pipe Welding, Methods of — R.

Sewell, 57 (Aug)
Weld Shop Keeps U. S. Coast Guard Always Ready — 31 (May)
Welder?, Who Will Become a — W. Western, 45 (Dec)
Welders in Mexico, Training — A. Hill Price, 41 (Dec)
Welders, Program Answers Industry's Call for Entry-Level — M. R. Johnsen, 29 (Dec)
Welding: A Useful Tool for the Automotive Industry, Electron Beam — D. Powers and G. Schubert, 35 (Feb)
Welding Aluminum, How to Select the Best Filler Metal for — T. Anderson, 69 (Nov)
Welding Aluminum, What You Should Know about — 54 (Jan)
Welding Applications: A Tutorial, Networking of — W. Rippey, T. P. Quinn and J. D. Gilsinn, 49 (Jan)
Welding Cell with Its Own Web Site, A — T. P. Quinn, J. D. Gilsinn and W. Rippey, 46 (Jan)
Welding and Cladding, Petrochemical Requirements Are Forcing Adjustments in — B. Irving, 53 (Aug)
Welding Going On, Chicago: There's a Whole Lot of — M. R. Johnsen and T. Heston, 48 (Apr)
Welding Is Off and Running at Caterpillar, Robotic Arc — B. Irving, 55 (Apr)
Welding Performance and Quality, A Wise Method for Assessing Arc — D. D. Harwig, 35 (Dec)
Welding Stands Poised for a Comeback in Bridge Construction, Electroslag — M. R. Johnsen, 39 (Feb)
Welding Technology Stars at 2000 AWS Exposition — A. Cullison and M. R. Johnsen, 33 (Jul)
Welding Technology Keeps Japan's High-Speed Trains on Track, Advanced — S. Yamada and K. Masubuchi, 48 (Nov).
What You Should Know about Welding Aluminum — 54 (Jan)
Wire Comes Through on Heavy Weldments, Metal Cored Welding — D. Phillips, 52 (Mar)

AUTHORS FOR FEATURE ARTICLES

Anderson, T. — How to Select the Best Filler Metal for Welding Aluminum, 69 (Nov)
Bernasek, M. and Brightmore, A. D. — Moving Weld Management from the Desk to the Desktop, 43 (Jan)
Blackman, S. A. and Dorling, D. V. — Technology Advancements Push Pipeline Welding Productivity, 39 (Aug)
Blackwood, V. and Still, J. R. — Repairing an Offshore Jacket Structure Proves Cost Effective, 43 (May)
Bogachek, V. — A New Approach to Powder Spraying, 45 (Feb)
Brightmore, A. D. and Bernasek, M. — Moving Weld Management from the Desk to the Desktop, 43 (Jan)
Bushey, R., Robinson, B., Christ, T., Hildebrand, K., Siewert, T. and McCowan, C. — Preserving a National Landmark, 54 (Nov)
Castner, H., Mitchell, G., Talkington, J. and Harwig, D. — Development of Titanium Weld Color Inspection Tools, 35 (Mar)
Christ, T., Hildebrand, K., Siewert, T., McCowan, C., Bushey, R. and Robinson, B. — Preserving a National Landmark, 54 (Nov)
Colton, C. E. — Respiratory Protection: Preparing for an OSHA Inspection, 49 (Mar)
Cullison, A. — Survey Reflects Stability in Welding Equipment Industry, 65 (Apr)
Cullison, A. and Johnsen, M. R. — Welding Technology Stars at 2000 AWS Exposition, 33 (Jul)
Devletian, J. H. Le, H. P. and Faridi, H. R., — A New Look at Flux-Free Soldering, 41 (Sep)
Dorling, D. V. and Blackman, S. A. — Technology Advancements Push Pipeline Welding Productivity, 39 (Aug
DuPont, J. N., Michael, J. R. and Robino, C. V. — Using Backscattered Electron Diffraction to Understand Weldability, 43 (Mar)
Ebert, H. W., — Improving the Reliability of Tube to Tubsheet Joints, 47 (Sep)
Faridi, H. R., Devletian, J. H. and Le, H. P. — A New Look at Flux-Free Soldering, 41 (Sep)
Flitter, L., Rippey, W. and Gilsinn, J. — Networking of Welding Applications: A Tutorial, 49 (Jan)
Gilsinn, J. D., Rippey, W. and Quinn, T. P. — A Welding Cell with Its Own Web Site, 46 (Jan)
Gilsinn, J., Flitter, L. and Rippey, W. — Networking of Welding Applications: A Tutorial, 49 (Jan)
Harwig, D. D. — Assessing Arc Welding Performance and Quality, A Wise Method for , 35 (Dec)
Harwig, D., Castner, H., Mitchell, G. and Talkington, J. — Development of Titanium Weld Color Inspection Tools, 35 (Mar)
Heston, T. — Cladding Operation Doubles Life of Boiler Tubing, 45 (Jul)
Heston, T. and Johnsen, M. R. — Chicago: There's a Whole Lot of Welding Going On, 48 (Apr)
Hildebrand, K., Siewert, T., McCowan, C., Bushey, R., Robinson, B. and Christ, T. — Preserving a National Landmark, 54 (Nov)
Howden, D. G., Soboyejo, W. O., Penso, J. A. and Tsai, C. L. — Assessing Deterioration Conditions in Coke Drums, 45 (Aug)
Irving, B. — HVIF Process Improves Densities of Many Thermal Sprayed Coatings, 42 (Feb)
Irving, B. — Petrochemical Requirements Are Forcing Adjustments in Welding and Cladding, 53 (Aug)
Irving, B. — Robotic Arc Welding Is Off and Running at Caterpillar, 55 (Apr)
Irving, B. — The Auto Industry Gears Up for Aluminum, 63 (Nov)
Johnsen, M. R. — Program Answers Industry's Call for Entry-Level Welders, 29 (Dec)
Johnsen, M. R. — Welding a Pathway to the Stars, 39 (Oct)
Johnsen, M. R. and Cullison, A. — Welding Technology Stars at 2000 AWS Exposition, 33 (Jul)
Johnsen, M. R. and Heston, T. — Chicago: There's a Whole Lot of Welding Going On, 48 (Apr)
Johnsen, M. R. — Electroslag Welding Stands Poised for a Comeback in Bridge Construction, 39 (Feb)
Kay, W. D. — Ten Reasons to Choose Brazing, 33 (Sep)
Landon, D. — Training for the Future, 48 (Dec)
Le, H. P., Faridi, H. R., and Devletian, J. H. — A New Look at Flux-Free Soldering, 41 (Sep)
Masubuchi, K. and Yamada, S. — Advanced Welding Technology Keeps Japan's High-Speed Trains on Track, 48 (Nov)
McCowan, C., Bushey, R., Robinson, B., Christ, T., Hildebrand, K., and Siewert, T. — Preserving a National Landmark, 54 (Nov)

McGaughy, T. — Two New Technologies May Increase Pipe Production and Reduce Cost, 65 (Aug)
Michael, J. R., Robino, C. V. and DuPont, J. N. — Using Backscattered Electron Diffraction to Understand Weldability, 43 (Mar)
Miller, J. A., — From Naiveté to Desperation: When Small Companies Enter into the Judiciary System, 35 (Oct)
Mitchell, G., Talkington, J., Harwig, D. and Castner, H. — Development of Titanium Weld Color Inspection Tools, 35 (Mar)
Penso, J. A., Tsai, C. L., Howden, D. G. and Soboyejo, W. O. — Assessing Deterioration Conditions in Coke Drums, 45 (Aug)
Phillips, D. — Metal Cored Welding Wire Comes Through on Heavy Weldments, 52 (Mar)
Powers, D. and Schubert, G. — Electron Beam Welding: A Useful Tool for the Automotive Industry, 35 (Feb)
Price, A. H. — Training Welders in Mexico, 41 (Dec)
Quinn, T. P., Gilsinn, J. D. and Rippey, W. — A Welding Cell with Its Own Web Site, 46 (Jan)
Ramasamy, S. — Drawn Arc Stud Welding: Crossing Over from Steel to Aluminum, 35 (Jan)
Robino, C. V., DuPont, J. N. and Michael, J. R. — Using Backscattered Electron Diffraction to Understand Weldability, 43 (Mar)
Rippey, W., Quinn, T. P. and Gilsinn, J. D. — A Welding Cell with Its Own Web Site, 49 (Jan)
Rippey, W., Gilsinn, J. and Flitter, L. — Networking of Welding Applications: A Tutorial, 54 (Jan)
Robinson, B., Christ, T., Hildebrand, K., Siewert, T., McCowan, C. and Bushey, R. — Preserving a National Landmark, 54 (Nov)
Sammons, M. — Inverter-Based GTA Welding Machines Improve Fabrication, 35 (May)
Sanko, G. — Back to Basics: A Guide to Alkaline Cleaning, 49 (Jul)
Sartwell, B. D. — Thermal Spray Coatings as an Alternative to Hard Chrome Plating, 39 (Jul)
Schubert, G. and Powers, D. — Electron Beam Welding: A Useful Tool for the Automotive Industry, 35 (Feb)
Sewell, R. — Methods of Weld Root Purging for Pipe Welding, 57 (Aug)
Shah, H. — Calculating the Total Cost of GMAW Gun Ownership, 49 (Oct)
Siewert, T., McCowan, C., Bushey, R., Robinson, B., Christ, T. and Hildebrand, K. — Preserving a National Landmark, 54 (Nov)
Soboyejo, W. O., Penso, J. A., Tsai, C. L. and Howden, D. G. — Assessing Deterioration Conditions in Coke Drums, 45 (Aug)
Speck, J. B. and Still, J. R. — Hull Weld Quality Critical for Offshore Oil Production Vessels, 33 (Aug)
Steele, F. — Company Embraces Automatic Laser Gas Supply System, 61 (Apr)
Still, J. R. and Blackwood, V. — Repairing an Offshore Jacket Structure Proves Cost Effective, 43 (May)
Still, J. R. and Speck, J. B. — Hull Weld Quality Critical for Offshore Oil Production Vessels, 33 (Aug)
Talkington, J., Harwig, D., Castner, C and Mitchell, G. — Development of Titanium Weld Color Inspection Tools, 35 (Mar)
Tsai, C. L., Howden, D. G., Soboyejo, W. O. and Penso, J. A. — Assessing Deterioration Conditions in Coke Drums, 45 (Aug)
Urban, S. A. — Manufacturers Capitalize on Brazing Flux Breakthroughs, 37 (Sep)
Villafuerte, J. — Improving Contact-Tube Performance through Cryogenics, 45 (Oct)
Western, W. — Who Will Become a Welder?, 45 (Dec)
Yamada, S. and Masubuchi, Koichi — Advanced Welding Technology Keeps Japan's High-Speed Trains on Track, 48 (Nov)

PART 2 — RESEARCH SUPPLEMENT

SUBJECT INDEX

Aluminum Alloy AA5754, Cracking in Spot Welding — J. Senkara and H. Zhang, 194-s (Jul)
Aluminum Alloys, A Method for Studying Weld Fusion Boundary Microstructure Evolution in — A. Kostrivas and J. C. Lippold, 1-s (Jan)
Aluminum Alloys Using the Front Weld Pool Image Signal, Control of Weld Penetration in VPPAW of — B. Zheng, H. J. Wang, Q. I. Wang and R. Kovacevic, 363-s (Dec)
Aluminum During Diffusion Welding, Interfacial Reactions of Titanium and — J-G Luo and V. L. Acoff, 239-s (Sep)
Aluminum Resistance Spot Welding Processes Using Coupled Finite Element Procedures, Analysis of — X. Sun and P. Dong, 215-s (Aug)
Aluminum Welds — Liquation Mechanism and Directional Soldification, Partially Melted Zone in — C. Huang and S. Kou, 113-s (May)
Analysis of Aluminum Resistance Spot Welding Processes Using Coupled Finite Element Procedures — X. Sun and P. Dong, 215-s (Aug)
Approximate Stress Intensity Factor and Notch Stress for Spot Welds — S. Zhang, 54-s (Feb)
Basicity of a FCAW Consumable — Part 1: Solidified Slag Composition of a FCAW Consumable as a Basicity Indicator, Reconsidering the — E. Bauné, C. Bonnet and S. Liu, 57-s (Mar)
Basicity of a FCAW Consumable — Part 2: Verification of the Flux/Slag Analysis Methodology for Weld Metal Oxygen Control, Reconsidering the — E. Bauné, C. Bonnet and S. Liu, 66-s (Mar)
Bead Volume for the Submerged Arc Process — Part 1, Prediction and Optimization of Weld — V. Gunaraj and N. Murugan 268-s (Oct)
Bead Volume for the Submerged Arc Process — Part 2, Prediction and Optimization of Weld — V. Gunaraj and N. Murugan, 331-s (Nov)
Beam Welding of Magnesium AZ91D Plates, Electron — A. Munitz, C. Cotler, H. Shaham and G. Kohn, 202-s (Jul)
Brazed Alumina Tensile Specimens, Microstructural and

Mechanical Characterization of Actively — F. M. Hosking, C. H. Cadden, N. Y. C. Yang, S. J. Glass, J. J. Stephens, P. T. Vianco and C. A. Walker, 222-s (Aug)
Brazed Joints, A New Approach to Improving the Properties of — B. Zorc and L. Kosec, 24-s (Jan)
Brazed Joints, Model Equation for Predicting the Tensile Strenght of Resistance- — K. Takeshita, 261-s (Sep)
Characteristics of Resistance Spot Welding of Steels, Force — H. Tang, W. Hou, S. J. Hu and H. Zhang, 175-s (Jul)
Characterization of C-Mn Steel Laser Beam Welded Joints with Powder Filler Metal, Structural — S. Missori and A. Sili, 317-s (Nov).
Construction Diagram, A New Ferritic-Martensitic Stainless Steel — M. C. Balmforth and J. C. Lippold, 339-s (Dec)
Consumable as a Basicity Indicator, Reconsidering the Basicity of a FCAW Consumable — Part 1: Solidified Slag Composition of a FCAW — E. Bauné, C. Bonnet and S. Liu, 57-s (Mar)
Convection in Simulated Weld Pools Containing a Surface-Active Agent, Visualization of Marangoni — C. Limmaneevichitr and S. Kou, 324-s (Nov)
Convection in Simulated Weld Pools, Visualization of Marangoni — C. Limmaneevichitr and S. Kou, 126-s (May)
Convection on Weld Pool Shape, Experiments to Simulate Effect of Marangoni — C. Limmaneevichitr and S. Kou, 231-s (Aug)
Cracking in Spot Welding Aluminum Alloy AA5754 — J. Senkara and H. Zhang, 194-s (Jul)
Cracking Susceptibility of a New Ferritic Steel — Part 1: Single-Pass Heat-Affected Zone Simulations , The Stress-Relief — J. G. Nawrocki, J. N. Dupont, C. V. Robino, and A. R. Marder, 355-s (Dec)
Defect Formation in Friction Welded Aluminum, Spiral — K. Uenishi, Y. Zhai, T. H. North and G. J. Bendzsak, 184-s (Jul)
Diffusion Welding, Interfacial Reactions of Titanium and Aluminum During — J-G Luo and V. L. Acoff, 239-s (Sep)
Dissimilar Metal Welds — Part 2: On-Cooling Transfromations, Nature and Evolution of the Fusion Boundary in Ferritic-Austenitic — T. W. Nelson, J. C. Lippold and M. J. Mills, 267-s (Oct)
Electron Beam Welding of Magnesium AZ91D Plates — A. Muniz, C. Cotler, H. Shaham and G. Kohn, 202-s (Jul)
Evolution of Titanium Arc Weldment Macro and Microstructures — Modeling and Real Time Mapping of Phases — Z. Yang, J. W. Elmer, J. Wong and T. DebRoy, 97-s (Apr)
FCAW Consumable — Part 1: Solidified Slag Composition of a FCAW Consumable as a Basicity Indicator, Reconsidering the Basicity of a — E. Bauné, C. Bonnet and S. Liu, 57-s (Mar)
FCAW Consumable — Part 2: Verification of the Flux/Slag Analysis Methodology for Weld Metal Oxygen Control, Reconsidering the Basicity of a — E. Bauné, C. Bonnet and S. Liu, 66-s (Mar)
Fatigue Assessment of Spot Welds Based on Local Stress Parameters — D. Radaj, 51-s (Feb)
Ferrite Number Prediction in Stainless Steel Arc Welds Using Artificial Neural Networks — Part 1: Neural Network Development, Improved — J. M. Vitek, Y. S. Iskander and E. M. Oblow, 33-s (Feb)
Ferrite Number Prediction in Stainless Steel Arc Welds Using Artificial Neural Networks — Part 2: Neural Network Results, Improved — J. M. Vitek, Y. S. Iskander and E. M. Oblow, 41-s (Feb)
Ferritic Steel — Part 1: Single-Pass Heat-Affected Zone Simulations, Cracking Susceptibility of a New — J. G. Nawrocki, J. N. Dupont, C. V. Robino, and A. R. Marder, 355-s (Dec)
Ferritic-Austenitic Dissimilar Metal Welds — Part 2: On-Cooling Transfromations, Nature and Evouliton of the Fusion Boundary in — T. W. Nelson, J. C. Lippold and M. J. Mills, 267-s (Oct)
Ferritic Steel — Part 1: Single-Pass Heat-Affected Zone Simulations, Cracking Susceptibility of a News — J. G. Nawrock, J. N. Dupont, C. V. Robino, and A. R. Marder, 355-s (Dec)
Filler Metal, Structural Characterization of C-Mn Steel Laser Beam Welded Joints with Powder — S. Missori and A. Sili, 317-s (Nov)
Finite Element Analyses, Modeling of Projection Welding Processes Using Coupled — X. Sun, 244-s (Sep)
Finite Element Analysis of Heat Flow in Single-Pass Arc Welds — E. A. Bonifaz, 121-s (May)
Finite Element Procedures, Analysis of Aluminum Resistance Spot Welding Processes Using Coupled — X. Sun and P. Dong, 215-s (Aug)
Fluid Physical Properties on Weld Qualification for In-Service Pipelines, The Influence of Working — R. J. Belanger and B. M. Patchett, 209-s (Aug)
Fluoride Additions in Welding Flux Hydrogen Control in Steel Weld Metal by Means of — M. Matsushita and S. Liu, 295-s (Oct)
Flux/Slag Analysis Methodology for Weld Metal Oxygen Control, Reconsidering the Basicity of a FCAW Consumable — Part 2 Verification of the — E. Bauné, C. Bonnet and S. Liu, 66-s (Mar)
Force Characteristics of Resistance Spot Welding of Steels — H. Tang, W. Hou, S. J. Hu and H. Zhang, 175-s (Jul)
Friction Welded Aluminum, Spiral Defect Formation in — K. Uenishi, Y. Zhai, T. H. North and G. J. Bendzsak, 184-s (Jul)
Fusion Boundary in Ferritic-Austenitic Dissimilar Metal Welds — Part 2: On-Cooling Transformations, Nature and Evolution, Nelson, T. W., Lippold, J. C. and Mills, M. J., 267-s (Oct)
Fusion Boundary Microstructure Evolution in Aluminum Alloys, A Method for Studying Weld — A. Kostrivas and J. C. Lippold, 1-s (Jan)
GTAW Process Light Mechanism and Its Application in Sensing of the — P. J. Li and Y. M Zhang, 252-s (Sep)
Heat-Affected Zone Simulations, The Stress-Relief Cracking Susceptibility of a New Ferritic Steel — Part 1: Single-Pass — J. G. Nawrocki, J. N. Dupont, C. V. Robino, and A. R. Marder, 355-s (Dec)
Heat Flow in Single-Pass Arc Welds, Finite Element Analysis of — E. A. Bonifaz, 121-s (May)
High-Strength Aluminum Alloy, A Hot-Cracking Mitigation Technique for Welding — Y. P. Yang, P. Dong, J. Zhang and X. Tian, 9-s (Jan)
Hot-Cracking Mitigation Technique for Welding High-Strength Aluminum Alloy, A — Y. P. Yang, P. Dong, J. Zhang and X Tian, 9-s (Jan)
HSLA-100 Welds Fabricated with New Ultra-Low-Carbon Weld Comsumables, Microhardness Variations in, D. W. Moon, R. W. Fonda and G. Spanos, 278-s (Oct)
Image-Based Penetration Monitoring of CO_2 Laser Beam Welding — R. K. Holbert, R. W. Richardson, D. F. Farson and C. E. Albright, 89-s (Apr)
Image Signal, Control of Weld Penetration in VPPAW of, Aluminum Alloys Using the Front Weld Pool — B. Zheng, H. J. Wang, Q. I. Wang and R. Kovacevic, 346-s (Dec)
Improved Ferrite Number Prediction in Stainless Steel Arc

Welds Using Artificial Neural Networks — Part 1: Neural Network Development — J. M. Vitek, Y. S. Iskander and E. M. Oblow, 33-s (Feb)
Improved Ferrite Number Prediction in Stainless Steel Arc Welds Using Artificial Neural Networks — Part 2: Neural Network Results — J. M. Vitek, Y. S. Iskander and E. M. Oblow, 41-s (Feb)
Influence of Working Fluid Physical Properties on Weld Qualification for In-Service Pipelines, The — R. J. Belanger and B. M. Patchett, 209-s (Aug)
Interaction of a Molten Droplet with a Liquid Weld Pool Surface: A Computational and Experimental Approach, An Investigation of the — M. H. Davies, M. Wahab and M. J. Painter, 18-s (Jan)
Investigation of the Interaction of a Molten Droplet with a Liquid Weld Pool Surface: A Computational and Experimental Approach, An — M. H. Davies, M. Wahab and M. J. Painter, 18-s (Jan)
Laser Beam Welded Joints with Powder Filler Metal, Structural Characterization of C-Mn Steel — S. Missori and A. Sili, 317-s (Nov)
Laser Beam Welding, Image-Based Penetration Monitoring of CO_2— R. K. Holbert, R. W. Richardson, D. F. Farson and C. E. Albright, 89-s (Apr)
Laser Beam Welding, Magneto-Fluid Dynamic Control of Seam Quality in CO_2 — M. Kern, P. Berger and H. Hügel, 72-s (Mar)
Light Mechanism and Its Application in Sensing of the GTAW Process — P. J. Li and Y. M Zhang, 252-s (Sep)
Liquation Mechanism and Directional Melted Zone in Aluminum Welds — C. Huang and S. Kou, 113-s (May)
Magnesium AZ91D Plates, Electron Beam Welding of — A. Munitz, C. Cotler, H. Shaham and G. Kohn, 202-s (Jul)
Magneto-Fluid Dynamic Control of Seam Quality in CO_2 Laser Beam Welding — M. Kern, P. Berger and H. Hügel, 72-s (Mar)
Marangoni Convection in Simulated Weld Pools, Visualization of — C. Limmaneevichitr and S. Kou, 126-s (May)
Martensite Boundary on the WRC-1992 Diagram — Part 2: The Effect of Manganese — A, D. J. Kotecki 346-s (Dec)
Mechanical Characterization of Actively Brazed Alumina Tensile Specimens, Microstructural and — F. M. Hosking, C. H. Cadden, N. Y. C. Yang, S. J. Glass, J. J. Stephens, P. T. Vianco and C. A. Walker, 222-s (Aug)
Mechanical Properties of Titanium Welds, Oxygen Equipment Effects on the — D. D. Harwig, C. Fountain, W. Ittiwattana and H. Castner, 305-s (Nov)
Method for Studying Weld Fusion Boundary Microstructure Evolution in Aluminum Alloys, A — A. Kostrivas and J. C. Lippold, 1-s (Jan
Microstructural and Mechanical Characterization of Actively Brazed Alumina Tensile Specimens — F. M. Hosking, C. H. Cadden, N. Y. C. Yang, S. J. Glass, J. J. Stephens, P. T. Vianco and C. A. Walker, 222-s (Aug)
Microstructure Evolution in Aluminum Alloys, A Method for Studying Weld Fusion Boundary — A. Kostrivas and J. C. Lippold, 1-s (Jan)
Microstructures — Modeling and Real Time Mapping of Phases, Evolution of Titanium Arc Weldment Macro and — Z. Yang, J. W. Elmer, J. Wong and T. DebRoy, 97-s (Apr)
Mitigation Technique for Welding High-Strength Aluminum Alloy, A Hot-Cracking — Y. P. Yang, P. Dong, J. Zhang and X. Tian, 9-s (Jan)
Molten Droplet with a Liquid Weld Pool Surface: A Computational and Experimental Approach, An Investigation of the Interaction of a — M. H. Davies, M. Wahab and M. J. Painter, 18-s (Jan)
Neural Networks — Part 1: Neural Network Development, Improved Ferrite Number Prediction in Stainless Steel Arc Welds Using Artificial — J. M. Vitek, Y. S. Iskander and E. M. Oblow, 33-s (Feb)
Neural Network Results, Improved Ferrite Number Prediction in Stainless Steel Arc Welds Using Artificial Neural Networks — Part 2 — J. M. Vitek, Y. S. Iskander and E. M. Oblow, 41-s (Feb)
New Approach to Improving the Properties of Brazed Joints, A — B. Zorc and L. Kosec, 24-s (Jan)
On-Cooling Transformations, Nature and Evolution of the Fusion Boundary in Ferritic-Austenitic Dissimilar Metal Welds — Part 2: Nelson, T. W., Lippold, J. C. and Mills, M. J., 267-s (Oct)
Optimization of Weld Bead Volume for the Submerged Arc Process — Part 2, Prediction and — V. Gunaraj and N. Murugan, 331-s (Nov)
Oxygen Control, Reconsidering the Basicity of a FCAW Consumable — Part 2: Verification of the Flux/Slag Analysis Methodology for Weld Metal — E. Bauné, C. Bonnet and S. Liu, 66-s (Mar)
Partially Melted Zone in Aluminum Welds — Liquation Mechanism and Directional Soldification — C. Huang and S. Kou, 113-s (May)
Penetration Monitoring of CO_2 Laser Beam Welding, Image-Based — R. K. Holbert, R. W. Richardson, D. F. Farson and C. E. Albright, 89-s (Apr)
Penetration in VPPAW of Aluminum Alloys Using the Front Weld Pool Image Signal, Control of Weld — B. Zheng, H. J. Wang, Q. I. Wang and R. Kovacevic, 363-s (Dec)
Pool Shape, Experiments to Simulate Effect of Marangoni Convection on Weld — C. Limmaneevichitr and S. Kou 231-s (Aug)
Pools Containing a Surface-Active Agent, Visualization of Marangoni Convection in Simulated Weld — C. Limmaneevichitr and S. Kou, 324-s (Nov)
Predicting the Tensile Strength of Resistance-Brazed Joints, Model Equation for — K. Takeshita, 261-s (Sep)
Preheat, The Welding of Structural Steels without — A.J. Kinsey, 79-s (Apr)
Projection Welding Processes Using Coupled Finite Element Analyses, Modeling of — X. Sun, 244-s (Sep)
Properties of Brazed Joints, A New Approach to Improving the — B. Zorc and L. Kosec, 24-s (Jan)
Properties on Weld Qualification for In-Service Pipelines, The Influence of Working Fluid Physical — R. J. Belanger and B. M. Patchett, 209-s (Aug)
Qualification for In-Service Pipelines, The Influence of Working Fluid Physical Properties on Weld — R. J. Belanger and B. M. Patchett, 209-s (Aug)
Real Time Mapping of Phases, Evolution of Titanium Arc Weldment Macro and Microstructures — Modeling and— Z. Yang, J. W. Elmer, J. Wong and T. DebRoy, 97-s (Apr)
Reconsidering the Basicity of a FCAW Consumable — Part 1: Solidified Slag Composition of a FCAW Consumable As a Basicity Indicator — E. Bauné, C. Bonnet and S. Liu, 57-s (Mar)
Reconsidering the Basicity of a FCAW Consumable — Part 2: Verification of the Flux/Slag Analysis Methodology for Weld Metal Oxygen Control — E. Bauné, C. Bonnet and S. Liu, 66-s (Mar)
Seam Quality in CO_2 Laser Beam Welding, Magneto-Fluid Dynamic Control of — M. Kern, P. Berger and H. Hügel, 72-s (Mar)
Sensing of the GTAW Process, Analysis of an Arc Light Mechanism and Its Application in — P. J. Li and Y. M

Zhang, 252-s (Sep)
Simulate Effects of Marangoni Convection on Weld Pool Shape, Experiments to — C. Limmaneevichitr and S. Kou 231-s (Aug)
Single-Pass Arc Welds, Finite Element Analysis of Heat Flow in — E. A. Bonifaz, 121-s (May)
Slag Composition of a FCAW Consumable as a Basicity Indicator, Reconsidering the Basicity of a FCAW Consumable — Part 1: Solidified — E. Bauné, C. Bonnet and S. Liu, 57-s (Mar)
Spiral Defect Formation in Friction Welded Aluminum — K. Uenishi, Y. Zhai, T. H. North and G. J. Bendzsak, 184-s (Jul)
Spot Welds, Approximate Stress Intensity Factor and Notch Stress for — S. Zhang, 54-s (Feb)
Spot Welds Based on Local Stress Parameters, Fatigue Assessment of — D. Radaj, 51-s (Feb)
Spot Welding Aluminum Alloy AA5754, Cracking in — J. Senkara and H. Zhang, 194-s (Jul)
Spot Welding of Steels, Force Characteristics of Resistance — H. Tang, W. Hou, S. J. Hu and H. Zhang, 175-s (Jul)
Spot Welding Processes Using Coupled Finite Element Procedures, Analysis of Aluminum Resistance — X. Sun and P. Dong, 215-s (Aug)
Stainless Steel Arc Welds Using Artificial Neural Networks — Part 1: Neural Network Development, Improved Ferrite Prediction in — J. M. Vitek, Y. S. Iskander and E. M. Oblow, 33-s (Feb)
Stainless Steel Arc Welds Using Artificial Neural Networks — Part 2: Neural Network Results, Improved Ferrite Number Prediction in — J. M. Vitek, Y. S. Iskander and E. M. Oblow, 41-s (Feb)
Stainless Steel Constitution Diagram, A New Ferritic-Martensitic — M. C. Balmforth and J. C. Lippold, 339-s (Dec)
Stress Intensity Factor and Notch Stress for Spot Welds, Approximate — S. Zhang, 54-s (Feb)
Stress Parameters, Fatigue Assessment of Spot Welds Based on Local — D. Radaj, 51-s (Feb)
Structural Steels without Preheat, The Welding of — A. J. Kinsey, 79-s (Apr)
Submerged Arc Process — Part 1, Prediction and Optimization of Weld Bead Volume for the — V. Gunaraj and N. Murugan 268-s (Oct)
Submerged Arc Process — Part 2, Prediction and Optimization of Weld Bead Volume for the — V. Gunaraj and N. Murugan, 331-s (Nov)
Surface-Active Agent, Visualization of Marangoni Convection in Simulated Weld Pools Containing a — C. Limmaneevichitr and S. Kou, 324-s (Nov)
Tensile Specimens, Microstructural and Mechanical Characterization of Actively Brazed Alumina — F. M. Hosking, C. H. Cadden, N. Y. C. Yang, S. J. Glass, J. J. Stephens, P. T. Vianco and C. A. Walker, 222-s (Aug)
Tensile Strength of Resistance-Brazed Joints, Model Equation for Predicting the — K. Takeshita, 261-s (Sep)
Titanium and Aluminum During Diffusion Welding, Interfacial Reactions of — J-G Luo and V. L. Acoff, 239-s (Sep)
Titanium Arc Weldment Macro and Microstructures — Modeling and Real Time Mapping of Phases, Evolution of — Z. Yang, J. W. Elmer, J. Wong, and T. DebRoy, 97-s (Apr)
Titanium Welds, Oxygen Equivalent Effects on the Mechanical Properties — D. D. Harwig, C. Fountain, W. Ittiwattana, and H. Castner, 305-s (Nov)
Ultra-Low-Carbon Weld Comsumables, Microhardness Variations in HSLA-100 Welds Fabricated with New — D. W. Moon, R. W. Fonda and G. Spanos, 278-s (Oct)
Visualization of Marangoni Convection in Simulated Weld Pools — C. Limmaneevichitr and S. Kou, 126-s (May)
VPPAW of Aluminum Alloys Using the Front Weld Pool Image Signal, Control of Weld Penetration in — B. Zheng, H. J. Wang, Q. I. Wang and R. Kovacevic, 363-s (Dec)
Weld Metal by Means of Fluoride Additions in Welding Flux Hydrogen Control in Steel — M. Matsushita and S. Liu, 295-s (Oct)
Weld Pool Surface: A Computational and Experimental Approach, An Investigation of the Interaction of a Molten Droplet with a Liquid — M. H. Davies, M. Wahab and M. J. Painter, 18-s (Jan)
Welding of Structural Steels without Preheat, The — A. J. Kinsey, 79-s (Apr)
WRC-1992 Diagram — Part 2: The Effect of Manganese, A Martensite Boundary on the — D. J. Kotecki 346-s (Dec)

AUTHORS FOR RESEARCH SUPPLEMENTS

Acoff, V. L. and Luo, J-G. — Interfacial Reactions of Titanium and Aluminum During Diffusion Welding, 239-s (Sep)
Albright, C. E., Holbert, R. K., Richardson, R. W. and Farson, D. F. — Image-Based Penetration Monitoring of CO_2 Laser Beam Welding, 89-s (Apr)
Ahmadi, G., Aidun, D. K. and Domey, J. J. — Effect on High Gravity on Weld Fusion Zone Shape, 145-s (Jun)
Aidun, D. K., Domey, J. J. and Ahmadi, G. — Effect of High Gravity on Weld Fusion Zone Shape, 145-s (Jun)
Balmforth, M. C. and Lippold, J. C. — Construction Diagram, A New Ferritic-Martensitic Stailess Steel, 339-s (Dec)
Bauné, E., Bonnet, C. and Liu, S. — Reconsidering the Basicity of a FCAW Consumable — Part 1: Solidified Slag Composition of a Consumable as a Basicity Indicator, 57-s (Mar)
Bauné, E., Bonnet, C. and Liu, S. — Reconsidering the Basicity of a FCAW Consumable — Part 2: Verification of the Flux/Slag Analysis Methodology for Weld Metal Oxygen Control, 66-s (Mar)
Belanger, R. J., Patchett, B. M., — The Influence of Working Fluid Physical Properties on Weld Qualification for In-Service Pipelines, 209-s (Aug)
Bendzsak, G. J., Uenishi, K., Zhai, Y. and North, T. H. — Spiral Defect Formation in Friction Welded Aluminum, 184-s (Jul)
Berger, P. Hügel, H. and Kern, M. — Magneto-Fluid Dynamic Control of Seam Quality in CO_2 Laser Beam Welding, 72-s (Mar)
Bonifaz, E. A. — Finite Element Analysis of Heat Flow in Single-Pass Arc Welds, 121-s (May)

Bonnet, C, Liu, S. and Bauné, E. — Reconsidering the Basicity of a FCAW Consumable — Part 1: Solidified Slag Composition of a FCAW Consumable as a Basicity Indicator, 57-s (Mar)

Bonnet, C, Liu, S. and Bauné, E. — Reconsidering the Basicity of a FCAW Consumable — Part 2: Verification of the Flux/Slag Analysis Methodology for Weld Metal Oxygen Control, 66-s (Mar)

Cadden, C. H., Yang, N. Y. C., Glass, S. J., Stephens, J. J., Vianco, P. T., Walker, C. A., Hosking, F. M. — Microstructural and Mechanical Characterization of Actively Brazed Alumina Tensile Specimens, 222-s (Aug)

Castner, H.,Harwig, D. D., Fountain, C. and Ittiwattana, W. — Oxygen Equivalent Effects on the Mechanical Properties of Titanium Welds, 305-s (Nov)

Chen, S. B., Lou, Y. J., Wu, L. and Zhao, D. B. — Intelligent Methodology for Sensing, Modeling and Control of Pulsed GTAW: Part 1 — Bead-on-Plate Welding, 151-s (Jun)

Chen, S. B., Zhao, D. B., Wu, L. and Lou, Y. J. — Intelligent Methodology for Sensing, Modeling and Control of Pulsed GTAW: Part 2 — Butt Joint Welding, 164-s (Jun)

Cotler, C., Shaham, H., Kohn, G. and Munitz, A. — Electron Beam Welding of Magnesium AZ91D Plates, 202-s (Jul)

Davies, M. H., Wahab, M. and Painter, M. J. — An Investigation of the Interaction of a Molten Droplet with a Liquid Weld Pool Surface: A Computational and Experimental Approach, 18-s (Jan)

DebRoy, T., Yang, Z., Elmer, J. W. and Wong, J. — Evolution of Titanium Arc Weldment Macro and Microstructures — Modeling and Real Time Mapping of Phases, 97-s (Apr)

Dong, P., Sun, X., Analysis of Aluminum Resistance Spot Welding Processes Using Coupled Finite Element Procedures, 215-s (Aug)

Dong, P., Zhang, J., Tian, X. and Yang, Y. P. — A Hot-Cracking Mitigation Technique for Welding High-Strength Aluminum Alloys, 9-s (Jan)

Dupont, J. N., Robino, C. V., Marder, A. R., and Nawrocki, J. G. — The Stress-Relief Cracking Susceptibility of a New Ferritic Steel — Part 1: Single-Pass Heat-Affected Zone Simulations, 355-s (Dec)

Elmer, J. W., Wong, J., DebRoy, T. and Yang, Z. — Evolution of Titanium Arc Weldment Macro and Microstructures — Modeling and Real Time Mapping of Phases, 97-s (Apr)

Farson, D. F., Albright, C. E., Holbert, R. K. and Richardson, R. W. — Image-Based Penetration Monitoring of CO_2 Laser Beam Welding, 89-s (Apr)

Fonda, R. W., Spanos, G. and Moon, T. W. — Microhardness Variations in HSLA-100 Welds Fabricated with New Ultra-Low-Carbon Weld Consumables, 278-s (Oct)

Fountain, C., Ittiwattana, W., Castner, H. and Harwig, D. D. — Oxygen Equivalent Effects on the Mechanical Properties of Titanium Welds, 305-s (Nov)

Glass, S. J., Stephens, J. J., Vianco, P. T., Walker, C. A., Hosking, F. M., Cadden and C. H., and Yang, N. Y. C. — Microstructural and Mechanical Characterization of Actively Brazed Alumina Tensile Specimens, 222-s (Aug)

Gunaraj V., and Murugan, N. — Prediction and Optimization of Weld Bead Volume for the Submerged Arc Process — Part 1, 286-s (Oct)

Gunaraj, V. and Murugan, N. — Prediction and Optimization of Weld Bead Volume for the Submerged Arc Process — Part 2, 331-s (Nov)

Harwig, D. D., Fountain, C., Ittiwattana, W., and Castner, H. — Oxygen Equivalent Effects on the Mechanical Properties of Titanium Welds, 305-s (Nov)

Holbert, R. K., Richardson, R. W., Farson, D. F. and Albright, C. E. — Image-Based Penetration Monitoring of CO_2 Laser Beam Welding, 89-s (Apr)

Hosking, F. M., Cadden, C. H., Yang, N. Y. C., Glass, S. J., Stephens, J. J., Vianco, P. T., and Walker, C. A. — Microstructural and Mechanical Characterization of Actively Brazed Alumina Tensile Specimens, 222-s (Aug)

Hou, W., Hu, S. J., Zhang, H. and Tang, H. — Force Characteristics of Resistance Spot Welding of Steels, 175-s (Jul)

Hu, S. J., Zhang, H., Tang, H. and Hou, W. — Force Characteristics of Resistance Spot Welding of Steels, 175-s (Jul)

Huang, C. and Kou, S. — Partially Melted Zone in Aluminum Welds — Liquation Mechanism and Directional Solidification, 113-s (May)

Hügel, H., Kern, M. and Berger, P. — Magneto-Fluid Dynamic Control of Seam Quality in CO_2 Laser Beam Welding, 72-s (Mar)

Iskander, Y. S., Oblow, E. M. and Vitek, J. M. — Improved Ferrite Number Prediction in Stainless Steel Arc Welds Using Artificial Neural Networks — Part 1: Neural Network Development, 33-s (Feb)

Iskander, Y. S., Oblow, E. M. and Vitek, J. M. — Improved Ferrite Number Prediction in Stainless Steel Arc Welds Using Artificial Neural Networks — Part 2: Neural Network Results, 41-s (Feb)

Ittiwattana, W., Castner, H.,Harwig, D. D. and Fountain, C. — Oxygen Equivalent Effects on the Mechanical Properties of Titanium Welds, 305-s (Nov)

Kinsey, A. J. — The Welding of Structural Steels without Preheat, 79-s (Apr)

Kern, M., Berger, P. and Hügel, H. — Magneto-Fluid Dynamic Control of Seam Quality in CO_2 Laser Beam Welding, 72-s (Mar)

Kohn, G., Munitz, A., Cotler, C. and Shaham, H. — Electron Beam Welding of Magnesium AZ91D Plates, 202-s (Jul)

Kosec, L. and Zorc, B. — A New Approach to Improving the Properties of Brazed Joints, 24-s (Jan)

Kostrivas, A. and Lippold, J. C. — A Method for Studying Weld Fusion Boundary Microstructure Evolution in Aluminum Alloys, 1-s (Jan)

Kotecki, D. J.,— A Martensite Boundary on the WRC-1992 Diagram — Part 2: The Effect of Manganese, 346-s (Dec)

Kou, S. and Huang, C. — Partially Melted Zone in Aluminum Welds — Liquation Mechanism and Directional Solidification, 113-s (May)

Kou, S., and Limmaneevichitr, C. — Experiments to Simulate Effect of Marangoni Convection on Weld Pool Shape, 231-s (Aug)

Kou, S. and Limmaneevichitr, C. — Visualization of Marangoni Convection in Simulated Weld Pools, 126-s (May)

Kou, S. and Limmaneevichitr, C. — Visualization of Marangoni Convection in Simulated Weld Pools Containing a Surface-Active Agent, 324-s (Nov)

Kovacevic, R., Zheng, B, Wang, H. J., and Wang, Q. I., — Control of Weld Penetration in VPPAW of Aluminum Alloys Using the Front Weld Pool Image Signal, 363-s (Dec)

Li, P. J. and Zhang, M. Y., — Analysis of an Arc Light Mechanism and Its Application in Sensing of the GTAW Process, 252-s (Sep)

Li, L. and Messler, Jr., R. W. — Stress Relaxation Study of HAZ Reheat Cracking in Type 347 Stainless Steel, 137-s (Jun)

Limmaneevichitr, C. and Kou, S. — Experiments to Simulate Effect of Marangoni Convection on Weld Pool Shape, 231-s (Aug)

Limmaneevichitr, C. and Kou, S. — Visualization of Marangoni Convection in Simulated Weld Pools, 126-s (May)
Limmaneevichitr, C. and Kou, S. — Visualization of Marangoni Convection in Simulated Weld Pools Containing a Surface-Active Agent, 324-s (Nov)
Lippold, J. C. and Balmforth, M. C. — A New Ferritic-Martensitic Stainless Steel Construction Diagram 339-s (Dec)
Lippold, J. C. and Kostrivas, A. — A Method for Studying Weld Fusion Boundary Microstructure Evolution in Aluminum Alloys, 1-s (Jan)
Lippold, J. C. and Mills, M. J. and Nelson, T. W. — Nature and Evolution of the Fusion Boundary in Ferritic-Austenitic Dissimilar Metal Welds — Part 2: On-Cooling Transformations, 267-s (Oct)
Liu, S., Bauné, E. and Bonnet, C. — Reconsidering the Basicity of a FCAW Consumable — Part 1: Solidified Slag Composition of a FCAW Consumable as a Basicity Indicator, 57-s (Mar)
Liu, S., Bauné, E. and Bonnet, C. — Reconsidering the Basicity of a FCAW Consumable — Part 2: Verification of the Flux/Slag Analysis Methodology for Weld Metal Oxygen Control, 66-s (Mar)
Liu, S. and Matsushita, M. — Hydrogen Control in Steel Weld Metal by Means of Fluoride Additions in Welding Flux, 295-s (Oct)
Lou, Y. J., Wu, L., Zhao, D. B. and Chen, S. B. — Intelligent Methodology for Sensing, Modeling and Control of Pulsed GTAW: Part 1 — Bead-on-Plate Welding, 151-s (Jun)
Lou, Y. J., Chen, S. B., Zhao, D. B. and Chen, S. B. — Intelligent Methodology for Sensing, Modeling and Control of Pulsed GTAW: Part 2 — Butt Joint Welding, 164-s (Jun)
Luo, J-G. and Acoff, V. L. — Interfacial Reactions of Titanium and Aluminum During Diffusion Welding, 239-s (Sep)
Marder, A. R., Nawrocki, J. G., Dupont, J. N., and Robino, C. V., — The Stress-Relief Cracking Susceptibility of a New Ferritic Steel — Part 1: Single-Pass Heat-Affected Zone Simulations , 355-s (Dec)
Matsushita, M and Liu, S., — Hydrogen Control in Steel Weld Metal by Means of Fluoride Additions in Welding Flux, 295-s (Oct)
Messler, Jr., R. W. and Li, L. — Stress Relaxation Study of HAZ Reheat Cracking in Type 347 Stainless Steel, 137-s (Jun)
Mills, M. J. and Nelson, T. W. and Lippold, J. C. — Nature and Evolution of the Fusion Boundary in Ferritic-Austenitic Dissimilar Metal Welds — Part 2: On-Cooling Transformations, 267-s (Oct)
Missori, S. and Sili, A. — Structural Characterization of C-Mn Steel Laser Beam Welded Joints with Powder Filler Metal, 317-s (Nov)
Moon, T. W., Fonda, R. W., and Spanos, G., — Microhardness Variations in HSLA-100 Welds Fabricated with New Ultra-Low-Carbon Weld Consumables, 278-s (Oct)
Munitz, A., Cotler, C., Shaham, H. and Kohn, G. — Electron Beam Welding of Magnesium AZ91D Plates, 202-s (Jul)
Murugan, N. and Gunaraj V. — Prediction and Optimization of Weld Bead Volume for the Submerged Arc Process — Part 1, 286-s (Oct)
Murugan, N. and Gunaraj, V. — Prediction and Optimization of Weld Bead Volume for the Submerged Arc Process — Part 2, 331-s (Nov)
Nawrocki, J. G., Dupont, J. N., Robino, C. V., and Marder, A. R. — The Stress-Relief Cracking Susceptibility of a New Ferritic Steel — Part 1: Single-Pass Heat-Affected Zone Simulations , 355-s (Dec)
Nelson, T. W., Lippold, J. C. and Mills, M. J. — Nature and Evolution of the Fusion Boundary in Ferritic-Austenitic Dissimilar Metal Welds — Part 2: On-Cooling Transformations, 267-s (Oct)
North, T. H., Bendzsak, G. J., Uenishi, K. and Zhai, Y. — Spiral Defect Formation in Friction Welded Aluminum, 184-s (Jul)
Oblow, E. M., Vitek, J. M. and Iskander, Y. S. — Improved Ferrite Number Prediction in Stainless Steel Arc Welds Using Artificial Neural Networks — Part 1: Neural Network Development, 33-s (Feb)
Oblow, E. M., Vitek, J. M. and Iskander, Y. S. — Improved Ferrite Number Prediction in Stainless Steel Arc Welds Using Artificial Neural Networks — Part 2: Neural Network Results, 41-s (Feb)
Painter, M. J., Davies, M. H. and Wahab, M. — An Investigation of the Interaction of a Molten Droplet with a Liquid Weld Pool Surface: A Computational and Experimental Approach, 18-s (Jan)
Patchett, B. M., Belanger, R. J. — The Influence of Working Fluid Physical Properties on Weld Qualification for In-Service Pipelines, 209-s (Aug)
Radaj, D. — Fatigue Assessment of Spot Welds Based on Local Stress Parameters, 51-s (Feb)
Richardson, R. W., Farson, D. F., Albright, C. E. and Holbert, R. K. — Image-Based Penetration Monitoring of CO_2 Laser Beam Welding, 89-s (Apr)
Robino, C. V., Marder, A. R.,Nawrocki, J. G., and Dupont, J. N. — The Stress-Relief Cracking Susceptibility of a New Ferritic Steel — Part 1: Single-Pass Heat-Affected Zone Simulations , 355-s (Dec)
Senkara, J. and Zhang, H. — Cracking in Spot Welding Aluminum Alloy AA5754, 194-s (Jul)
Shaham, H., Kohn, G., Munitz, A. and Cotler, C. — Electron Beam Welding of Magnesium AZ91D Plates, 202-s (Jul)
Sili, A. and Missori, S. — Structural Characterization of C-Mn Steel Laser Beam Welded Joints with Powder Filler Metal, 317-s (Nov)
Spanos, G. and Moon, T. W. and Fonda, R. W. — Microhardness Variations in HSLA-100 Welds Fabricated with New Ultra-Low-Carbon Weld Consumables, 278-s (Oct)
Stephens, J. J., Vianco, P. T., Walker, C. A., Hosking, F. M., Cadden, C. H., Yang, N. Y. C., and Glass, S. J. — Microstructural and Mechanical Characterization of Actively Brazed Alumina Tensile Specimens, 222-s (Aug)
Sun, X. — Modeling of Projection Welding Processes Using Coupled Finite Element Analyses, 244 (Sep)
Sun, X., and Dong, P. — Analysis of Aluminum Resistance Spot Welding Processes Using Coupled Finite Element Procedures, 209-s (Aug)
Takeshita, K. — Model Equation for Predicting the Tensile Strength of Resistance-Brazed Joints, 261-s (Sep)
Tang, H., Hou, W., Hu, S. J. and Zhang, H. — Force Characteristics of Resistance Spot Welding of Steels, 175-s (Jul)
Tian, X., Yang, Y. P., Dong, P. and Zhang, J. — A Hot-Cracking Mitigation Technique for Welding High-Strength Aluminum Alloy, 9-s (Jan)
Uenishi, K., Zhai, Y., North, T. H. and Bendzsak, G. J. — Spiral Defect Formation in Friction Welded Aluminum, 184-s (Jul)
Vianco, P. T., Walker, C. A., Hosking, F. M., Cadden, C. H., Yang, N. Y. C., Glass, S. J., and Stephens, J. J. — Microstructural and Mechanical Characterization of Actively Brazed Alumina Tensile Specimens, 222-s (Aug)
Vitek, J. M., Iskander, Y. S. and Oblow, E. M. — Improved Ferrite Number Prediction in Stainless Steel Arc Welds Using Artificial Neural Networks — Part 1: Neural Network Development, 33-s (Feb)

Vitek, J. M., Iskander, Y. S. and Oblow, E. M. — Improved Ferrite Number Prediction in Stainless Steel Arc Welds Using Artificial Neural Networks — Part 2: Neural Network Results, 41-s (Feb)
Wahab, M., Painter, M. J. and Davies, M. H. — An Investigation of the Interaction of a Molten Droplet with a Liquid Weld Pool Surface: A Computational and Experimental Approach, 18-s (Jan)
Walker, C. A., Hosking, F. M., Cadden, C. H., Yang, N. Y. C., Glass, S. J., Stephens, J. J., and Vianco, P. T. — Microstructural and Mechanical Characterization of Actively Brazed Alumina Tensile Specimens, 222-s (Aug)
Wang, H. J., Wang, Q. I., Kovacevic, R., and Zheng, B — Control of Weld Penetration in VPPAW of Aluminum Alloys Using the Front Weld Pool Image Signal, 363-s (Dec)
Wang, Q. I., Kovacevic, R., Zheng, B, and Wang, H. J., — Control of Weld Penetration in VPPAW of Aluminum Alloys Using the Front Weld Pool Image Signal, 363-s (Dec)
Wong, J., DebRoy, T., Yang, Z. and Elmer, J. W. — Evolution of Titanium Arc Weldment Macro and Microstructures — Modeling and Real Time Mapping of Phases, 97-s (Apr)
Wu, L., Zhao, D. B., Chen, S. B. and Lou, Y. J. — Intelligent Methodology for Sensing, Modeling and Control of Pulsed GTAW: Part 1 — Bead-on-Plate Welding, 151-s (Jun)
Wu, L., Lou, Y. J., Chen, S. B. and Zhao, D. B. — Intelligent Methodology for Sensing, Modeling and Control of Pulsed GTAW: Part 2 — Butt Joint Welding, 164-s (Jun)
Yang, N. Y. C., Glass, S. J., Stephens, J. J., Vianco, P. T., Walker, C. A., Hosking, F. M. and Cadden, C. H. — Microstructural and Mechanical Characterization of Actively Brazed Alumina Tensile Specimens, 222-s (Aug)
Yang, Y. P., Dong, P., Zhang, J. and Tian, X. — A Hot-Cracking Mitigation Technique for Welding High-Strength Aluminum Alloy, 9-s (Jan)
Yang, Z., Elmer, J. W., Wong, J. and DebRoy, T. — Evolution of Titanium Arc Weldment Macro and Microstructures — Modeling and Real Time Mapping of Phases, 97-s (Apr)
Zhai, Y., North, T. H., Bendzsak, G. J. and Uenishi, K. — Spiral Defect Formation in Friction Welded Aluminum, 184-s (Jul)
Zhang, H. and Senkara, J. — Cracking in Spot Welding Aluminum Alloy AA5754, 194-s (Jul)
Zhang, H., Tang, H., Hou, W. and Hu, S. J. — Force Characteristics of Resistance Spot Welding of Steels, 175-s (Jul)
Zhang, J., Tian, X., Yang, Y. P. and Dong, P. — A Hot-Cracking Mitigation Technique for Welding High-Strength Aluminum Alloy, 9-s (Jan)
Zhang, M. Y. and Li, P. J. — Analysis of an Arc Light Mechanism and Its Application in Sensing of the GTAW Process, 252-s (Sep)
Zhang, S. — Approximate Stress Intensity Factor and Notch Stress for Spot Welds, 54-s (Feb)
Zhao, D. B., Wu, L., Lou, Y. J. and Chen, S. B. — Intelligent Methodology for Sensing, Modeling and Control of Pulsed GTAW: Part 1 — Bead-on-Plate Welding, 151-s (Jun)
Zhao, D. B., Wu, L., Lou, Y. J. and Chen, S. B. — Intelligent Methodology for Sensing, Modeling and Control of Pulsed GTAW: Part 2 — Butt Joint Welding, 164-s (Jun)
Zheng, B., Wang, H. J., Wang, Q. I., and Kovacevic, R. — Control of Weld Penetration in VPPAW of Aluminum Alloys Using the Front Weld Pool Image Signal, 363-s (Dec)
Zorc, B. and Kosec, L. — A New Approach to Improving the Properties of Brazed Joints, 24-s (Jan)

GET IN THE SWIM

If you know a child with muscular dystrophy who can benefit from a special getaway, tell him or her about MDA summer camps. They're fun and free!

PHOTO PARADE / EDDIE ADAMS

MDA

Muscular Dystrophy Association
Jerry Lewis, National Chairman
1-800-572-1717 • www.mdausa.org

People Help MDA ...
Because MDA Helps People